



Charlotte gets smart about waste collection routing

The city of Charlotte, North Carolina, has saved a significant number of labor hours by integrating GIS into its refuse collection process. Charlotte had adopted a system from RouteSmart Technologies of Columbia, Maryland, to automate its routing and replace the old-fashioned tools of wall maps, pushpins, and colored pencils. Staffers manually keyed routes into the customer service database of 150,000 addresses because the city lacked technology to interact between routing and customer service. This took a great deal of time and resulted in inaccuracies, inefficiency, and waning revenues.

The old system meant frequent overtime and equipment problems on some collection routes, while high slack times plagued other routes. To help resolve the discrepancies, the department decided to implement RouteSmart GIS.

RouteSmart automatically partitions collection routes and balances crew workloads. In configuring new routes, RouteSmart includes travel times between an office or depot and the disposal site. It can also factor in nonproductive work time as part of its calculations. RouteSmart includes the mix of vehicles used to collect trash and enables users to better manage vehicles of varying capacities, matching them with collection sites and routing them more efficiently. The algorithmically savvy software allocates vehicles to streets based on an array of mixed fleet variables and street restrictions including right-of-way restrictions.

The city saw tangible results in a year. Staff estimated that RouteSmart saved Charlotte a significant number of labor hours and provided a good base for creating routes quickly. Charlotte has since purchased an additional system for its water department. ☉

SECTOR *Logistics and Fleet Management*
INDUSTRY *Transportation*

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Charlotte, North Carolina saves man-hours by automatically specifying collection routes and crew workloads with a GIS application from RouteSmart Technologies.



ADDITIONAL BENEFITS

